

SPECTRAL RADIUS AND HAMILTONICITY OF GRAPHS

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Abstract

In this paper, we study the Hamiltonicity of graphs with large minimum degree. Firstly, we present some conditions for a simple graph to be Hamilton-connected and traceable from every vertex in terms of the spectral radius of the graph or its complement, respectively. Secondly, we give the conditions for a nearly balanced bipartite graph to be traceable in terms of spectral radius, signless Laplacian spectral radius of the graph or its quasi-complement, respectively.

Keywords: spectral radius, signless Laplacian spectral radius, traceable, Hamiltonian-connected, traceable from every vertex, minimum degree.

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